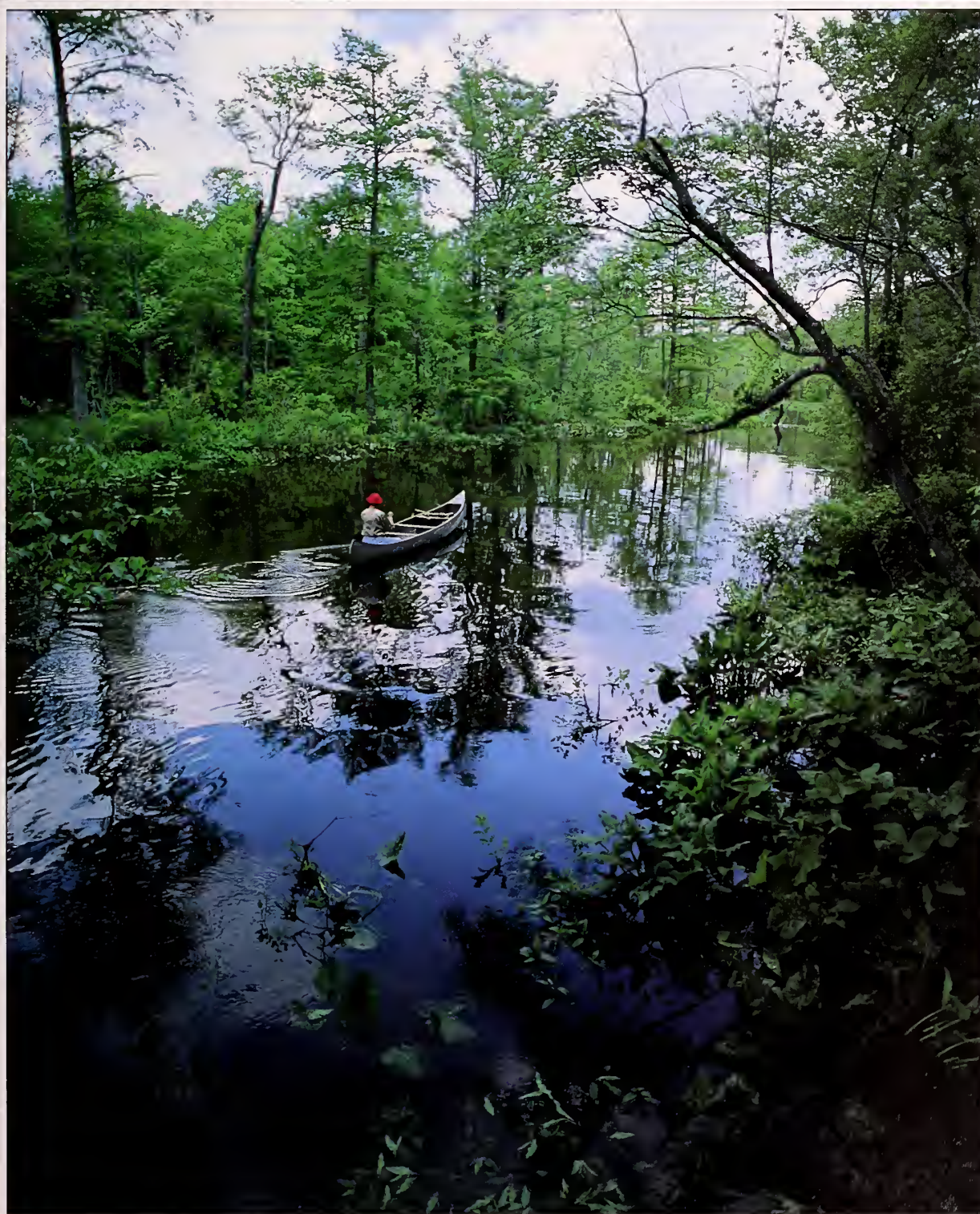


VIRGINIA WILDLIFE

JULY 1993

ONE DOLLAR



A Dedication



Lewis Costello, 1933-1993.

Lewis M. Costello, member of the Virginia Department of Game and Inland Fisheries' (VDGIF) Board of Directors, died suddenly at the age of 59 on April 30 from a heart attack. Mr. Costello represented the 7th District on the VDGIF board, which includes the counties of Culpeper, Greene, Madison, Orange, and portions of Albemarle, Chesterfield, Hanover, Henrico, Spotsylvania, and the city of Richmond.

An esteemed tax attorney and certified public accountant, Mr. Costello was a highly respected and valued

member of VDGIF's Board of Directors. Said former Chairman of the Board Eli Jones: "I believe Lew had one of the quickest and sharpest minds that has ever been on the Board. When it came to financial matters, he was a whiz." Mr. Jones also credits Mr. Costello with helping the agency move onto sound financial footing.

Another past VDGIF Chairman of the Board, Henry Thomas, credited Mr. Costello with a deep commitment to the sportsman. "He always had the interest of the Virginia hunter and fisherman in mind and was very committed to what he was doing." A member of the Izaak

Walton League of America, Ducks Unlimited, the National Wild Turkey Federation, and the National Rifle Association, Mr. Costello was also a lifelong hunter and active supporter of VDGIF's Hunter Education Program.

But Mr. Costello did not limit his community service to VDGIF. In fact, a list of his volunteer efforts makes one marvel at his superhuman energy and selfless dedication to the community. For example, he was president of the Shenandoah Area Council of the Boy Scouts, the Director of the Stephens City Rotary Club, Chairman of the Youth Development Center,

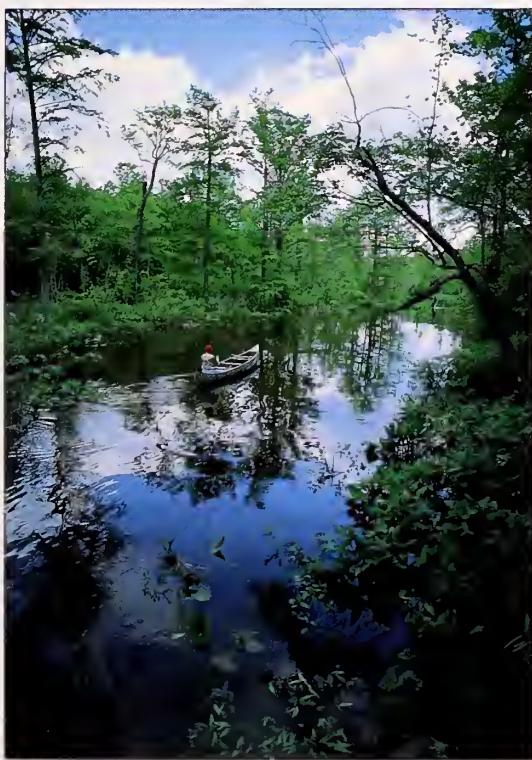
Inc., Co-Chairman of the Winchester/Frederick County United Fund, member of the Winchester City and Frederick County School Boards, president and member of the Board of Trustees of the Virginia Law Foundation, president of the Winchester/Frederick County Bar Association, and president of the Board of Governors of the Virginia State Bar. And that's just for starters. He also found time to be a lecturer for continuing legal educational seminars at Shenandoah University, and to assist the General Assembly on developing legislation.

He was a remarkable man. Leon McFillen, VDGIF's current Chairman of the Board, believes that besides Mr. Costello's tremendous service to the Commonwealth, his greatest gift to those who knew him was "his ability to bring out the best in people. He didn't dwell on their weaknesses. Instead, he continuously challenged their strengths." And to those who might remember Mr. Costello's keen and sometimes unsettling use of argument, McFillen replies: "When he did that, it was to make you a stronger, more positive, more self-confident person. He set up challenges and expected you to meet them."

When Eli Jones said "the agency and the state of Virginia has suffered a real loss with Lew's passing," the truth of these words reverberate throughout the Commonwealth. Mr. Costello has left a legacy of caring and service to us all. We dedicate this issue of *Virginia Wildlife* to his memory.



VIRGINIA WILDLIFE



Pretty is a pretty does, and this pretty purple meadow is threatening our wetlands and wildlife; see page 13 for details; photo by T.G. Scott, Jr.

Cover: Dragon Run meanders through the Middle Peninsula south of Miller's Tavern to the Piankatank River. Part swamp, part river, the Dragon is a piece of Virginia wilderness; see story beginning on page 21. Photo by Dwight Dyke.

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Dedicated to the Conservation of Virginia's Wildlife and Natural Resources



Flights of Fancy



*Ruby-throated hummingbird young in nest,
photo by Steve Maslowski.*

*That time of year thou mayst in me behold
When yellow leaves, or none, or few, do hang
Upon those boughs which shake against the cold,
Bare ruined choirs, where late the sweet bird sang.
In me thou seest the twilight of such day
As after sunset fadeth in the west,
Which by and by black night doth take away,
Death's second self, that seals up all in rest.
In me thou seest the glowing of such fire
That on the ashes of his youth doth lie,
As on the death-bed whereon it must expire,
Consum'd with that which it was nourish'd by.
This thou perceiv'st, which makes thy love more strong,
To love that well which thou must leave ere long.*

—William Shakespeare
Sonnet #73



with joy and gratitude when they arrive? It's not for the pleasure of noting different varieties, for only one variety of hummingbird travels east of the Mississippi: the ruby-throated hummingbird, *Archilochus colubris*, so called for the luminous red feathers which cover the male's throat for most of the year.

Perhaps those radiant feathers have something to do with it: they flash like the jewels they were named for. Perhaps we find their behavior amusing: a female will lay claim to each feeder or section of flowers and zoom in aggressively to chase off potential feeders of both sexes. There is something comical in

seeing creatures so tiny, yet so contentious; it is as if a Saturday morning cartoon has

come to life and is playing and re-playing itself on your front porch.

It is not only their size that makes them seem like cartoons. Hummingbirds, like animated characters, seem to defy the laws of

physics. With their small wings rotating at precise angles and incredible speed, they can hover motionlessly, ascend and descend on a straight line and fly backwards, and even upside-down.

It is, I think, these qualities of maneuverability and speed that draw us to take the time and effort to attract these little birds; for our appreciation of these qualities can in turn lead us to the love of evanescent beauty.

Consider the life of our female hummingbird. It is short but ecstatic. Driven by a racing metabolic rate, she will return to a feeder every 10 to 12 minutes, but each feeding will be completed in a matter of seconds. She must be in the air almost constantly, searching for blossoms or man-made feeders. Indeed, her feet are so small and legs so weak that she cannot walk or hop along the ground. She is only still at night when she has found a safe place to perch and power down for a few hours, during which time her body will slow into a torpor. This death-like state is necessary for survival; if

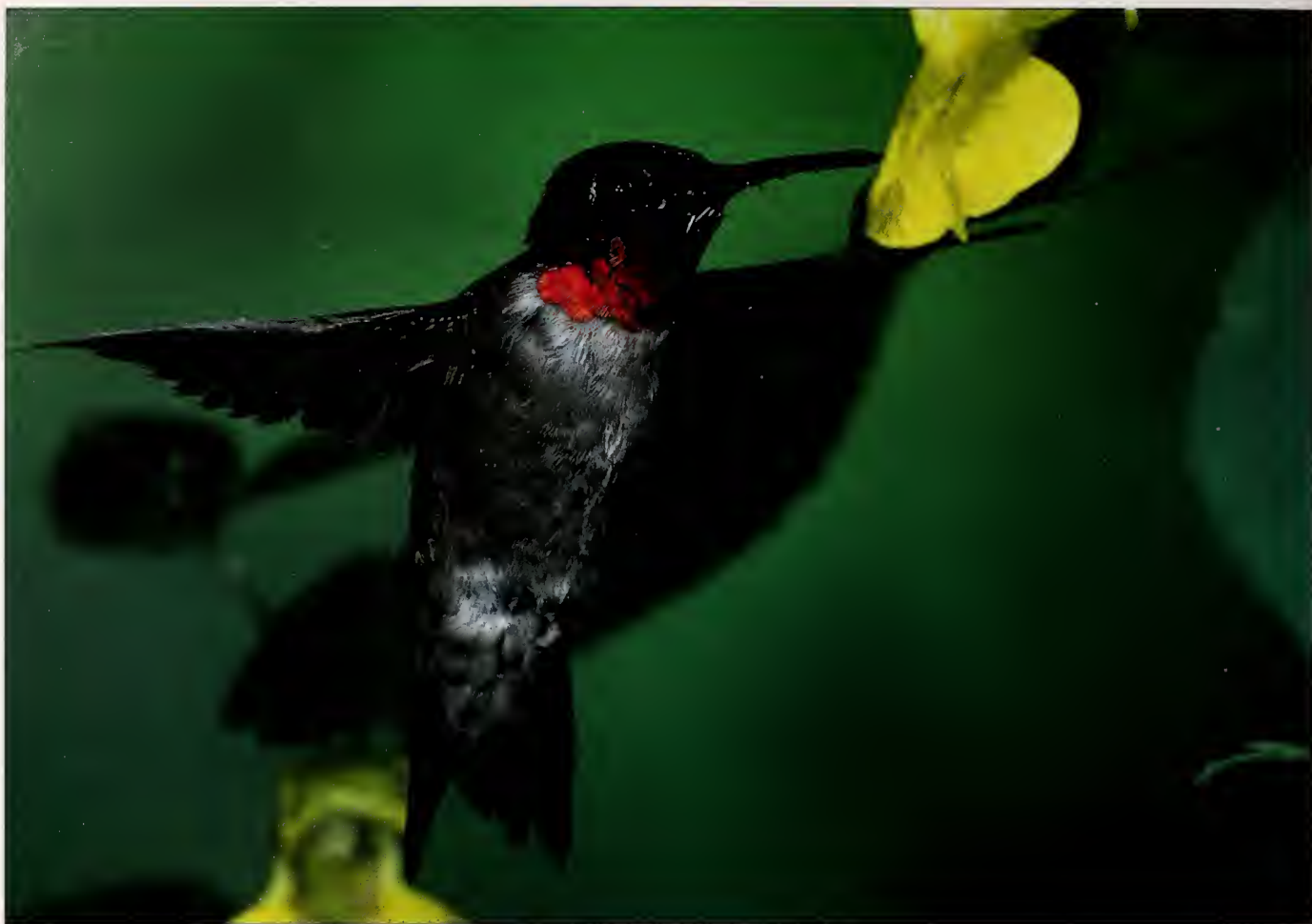
by Sarah E. White

Hummingbird watching is an odd passion. Much preparation is required: the coral bells, evening primrose and columbine must be planted and encouraged; the morning glory and bee balm laid out; the jewelweed and honeysuckle left untrimmed (much to the discomfort of your more fastidious neighbors). The feeders must be purchased and the mixes also; shockingly red powders reminiscent of Kool-Aid must be bought and made up. These curved vessels of glass or plastic will require frequent maintenance—setting up, cleaning, refilling, setting up again—a weekly regimen from mid-April till Labor Day.

Given that all this effort is involved, why do people try to attract hummingbirds and watch them



Above: Although we delight in watching ruby-throated hummingbirds visit our feeders in the summer, it is vital to make sure the feeders are cleaned thoroughly every week with hot water and vinegar to prevent mold; photo by Steve Maslowski.



she maintained her high metabolic rate all night without feeding, she would starve to death. In the morning when she leaves the perch, she will take off, as few birds can, at full speed. This life is a brief flash of color, a swift movement of exquisite grace.

We plant flowers and hang feeders, hoping that such lives will come in contact with ours. If we are lucky they will, but that contact will be brief: a spark of color, a hum heard through a window open for summer. Such moments cannot be had on demand and they cannot be held; they are gifts that must be accepted, loved and allowed to disappear.

We must continue to plant columbine and hang feeders and court hummingbirds. □

Sarah E. White is a freelance writer living in Richmond.



Ruby-throated hummingbirds love jewelweed (**top**) as well as trumpet creeper vine, cardinal flower and mimosa trees. Their nests (**above**) are composed of fairy-tale materials: bud scales and lichen bound with spider's silk, then lined with plant down; photos by Maslowski.

Preserving in bronze what we're losing in the wild

An Endangered Species Series by Turner Sculpture

Capturing the essence of Virginia's endangered species in bronze, David Turner of Turner Sculpture has just completed the second in his limited edition series to raise funds for Virginia's Nongame and Endangered Species Program.

This time, David has turned his artist's eye toward one of Virginia's rarest mammals, the Northern flying squirrel. An elusive, elf-like spirit of our mountaintop spruce forests, this tiny squirrel weighs no more than five ounces and is known only to three locations in Virginia. Strictly nocturnal, it emerges from its nest of shredded bark, lichens, and moss once darkness has fallen and glides silently from tree to tree, its outstretched feet unfurling the parachute-like flaps of skin attached to each wrist and ankle.

Here, David Turner's 7" high sculpture of a Northern flying squirrel (photo approximates actual size) is poised for flight on an old-growth snag covered with the lichens and bracket fungus which make up a large part of its diet.

Like the bronze sculpture of the Bewick's wren also featured on this page (less than 100 are left for sale), a limited edition of 200 Northern flying squirrels will be cast and sold solely to benefit Virginia's Nongame and Endangered Species Program, the program responsible for the management and protection of all the Commonwealth's rare and endangered wildlife. The money raised from the sale of these two sculptures will provide the program with over 1/10th of its present operating budget.

Each sculpture has a purchase price of \$325. Turner Sculpture will receive \$175 to cover their production costs, while the remaining \$150 will be sent to the Virginia Department of Game and Inland Fisheries as your contribution to Virginia's Nongame and Endangered Species Fund. A tax advisor should be consulted regarding the personal tax deductibility of this contribution. Each piece sold will include a certificate of origin and a letter confirming your contribution to the future of Virginia's wildlife.

You may order either the Northern flying squirrel or the Bewick's wren by sending a \$325 check for each signed and numbered sculpture to: Turner Sculpture, Box 128, Onley VA 23418. For credit card orders, call: 804/787-2818. **Note:** If you have already purchased a Bewick's wren and would like the same limited edition number in the Northern flying squirrel edition, please send in your order as soon as possible.



TURNER
SCULPTURE



Bewick's wren (height: 12 inches) by David Turner. Available for \$325.

Float-Fishing Made



photo by Soc Clay

***Pack up that johnboat
or canoe and take to
the rivers of Virginia.
But first, memorize
these 10 cardinal rules
of float-fishing!***

by Gerald Almy

It was destined to be another sizzling summer day, but we didn't care. We knew the surrounding emerald waters of the Shenandoah River would keep us cool, and if the day grew too warm, we would slip over the gunnel and wet-wade a particularly appealing riffle or pool as we floated eight miles downstream to our take-out point where another vehicle was waiting. There would be no phone calls, no blaring TVs, no appointments, no pressures of everyday life. Just the current, the fish, a boat and paddle.

We pushed off into the deep green run, took a quick stroke with the paddle and grabbed our ultra-light spinning rigs. The first two casts with a Rapala and chartreuse grub drew strikes from a brace of smallmouth bass. One pulled free, but the other was landed and carefully released, after a water-spraying leap and several determined runs. A rock bass came next, followed by several redbreast sunfish, then more bronzebacks. It was the kind of trip fishing dreams are made of. More than 100 fish were landed, over half feisty smallmouths.



nock and others, I've also had my share of mishaps, poor fishing and near-disasters. That's why a run-down on common mistakes that can mar float fishing might be of value, in order to allow newcomers to enjoy rewarding float trips from the start, rather than learning the hard way.

Float-fishing is such an adventurous kind of fishing that too often it's done in a haphazard, spur-of-the-moment kind of way. That's when the problems begin. To fulfill its promise, float-fishing should be properly planned, carefully timed, and undertaken in a thoughtful manner. If you take the carefree attitude that nothing could go wrong once you get away from the city's noise and pressures, you're asking for a fiasco. There are many things that can go wrong—I know from experience!

Described below are 10 of the most common pitfalls that can ruin or reduce a day of float-fishing. Avoid these and you'll find this kind of fishing can be a terrific way to spend a hot summer day on the water.

1 *Choosing poor fishing water.* Some rivers and streams in Virginia are excellent for float-fishing, while others are just so-so. Inquire with fishery biologists, local game wardens, sporting goods stores and river canoe outfitters to find out which waters closest to your home are best. But, just coming away with the name of a river is not enough. Fishing can vary dramatically in quality from section to section. Try to get specifics from your sources on the best waters for fishing. But, don't get stuck in a rut, either. Part of the pleasure of this fishing is exploring new stretches of river and finding good spots on your

own. In general, avoid sections with long, slow stretches. The water above dams is usually poor because cover is sparse and you will likely have to paddle a lot, then portage around the dam. The best fishing usually occurs where lots of riffles and minor rapids break the flow and provide food, oxygen and cover for feeding fish.

2 *Choosing too long a float.* Once you've selected a prime river and section to fish, the length of the trip requires careful consideration. A friend and I once bit off too long of a stretch and wound up paddling downstream in a river we'd never seen before on a moonless night for two hours after the sun went down. We were lucky no major disaster occurred, but it was not a pleasant experience. We bumped into unseen rocks, stumbled and bruised our shins as we dragged the boat through shallow riffles, and paddled joylessly downstream in complete darkness.

Because of the potential dangers and the unpleasantness of being on a river you don't know after dark, always err on the side of too short a section rather than too long a one. Rivers don't rush straight downstream like they appear to on road maps. Instead, they meander and curve back and forth in time-eating loops. What looks like a couple of hours trip could well be an all-day

When we pulled out at afternoon's end, our muscles were tired from paddling and fighting fish, but inside was a glow from the success of the trip and the relaxing day on the water. For 10 hours we had become part of the river.

That's the way float-fishing can be. I've enjoyed many fulfilling trips like that one, with lots of fish caught, scenery and wildlife enjoyed and nothing gone wrong to mar the day. But over 25 years of participating in this rich type of fishing that's so readily available on rivers such as the James, Shenandoah, Rappahan-



Make sure you pack all the necessary gear you'll need for a float-fishing trip, including emergency gear and both spin and fly-fishing tackle; photo by Dwight Dyke.



one. The best way to plan the time of the trip is to consult with people who have made that exact float before and also to invest in a topographic map. These are available from the Virginia Division of Mineral Resources, Box 3667, Charlottesville, VA 22903 (804/293-5121). Detailed maps that will help you plan floats on the Shenandoah, the Rappahannock and Rapidan, the Nottoway, the Staunton, the Clinch, and the James Rivers are also available for \$1 each from the Department of Game and Inland Fisheries, Box 11104, Richmond, VA 23230-1104.

For a half-day float, 4-6 river miles is usually a good distance to cover. For a full-day trip, you can bite off 8-10 miles. More than this and it will be a long day on the water and the trip may stretch into the night. Too long of a trip doesn't just mean you might be on the water after dark. It also means you'll find

yourself hurrying through good fishing water, and not daring to stop paddling because you have to reach the take-out point before sunset. That ruins the whole relaxed mood float-fishing should have.

3 *Missing the prime fishing hours.* This may not be a problem on the best stretches of rivers in Virginia where smallmouths and panfish tend to feed all day long. But, often in marginal water or on a so-so day, you may find by the time you drop off the take-out vehicle, unload boat and gear and shove off, you've missed the early-morning feed by the largest bass. Then, when you pull into the take-out point in late afternoon, you'll be leaving the river before the final flurry of feeding at dusk.

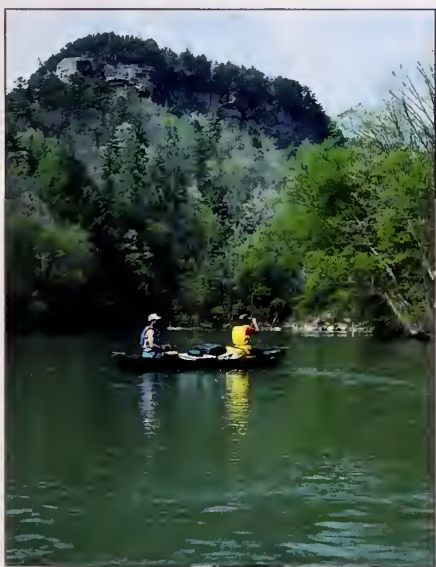
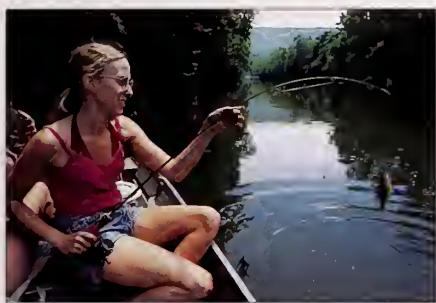
Camping out, whenever feasible, is the best way I know of to be on the river for these prime fishing periods. I had a good example of this on

a float on the New River a few years back. We had enjoyed catching large numbers of fish all day. But it was right at dusk, after we'd pitched our camp, eaten dinner and were out for one last fling at 8:30 p.m. that the biggest fish of the day struck. The smallmouth nabbed a Bomber Model A Firetiger and fought a battle against the 6-pound spinning rod before I landed, weighed and released him. At 5 pounds, 10 ounces, he dwarfed all the other bass we had caught during bright daylight hours.

Make sure camping is legal where you plan to stay overnight, and always remove every scrap of litter—yours or other people's—before leaving the next morning. Camping adds a whole new element of adventure to float-fishing and also provides a tactical advantage for catching those big fish that feed so often at dawn and dusk, when you would otherwise be driving to

the water or heading home.

4 *Not packing emergency gear.* Hopefully, you'll never need it, but having emergency gear on all float trips is a wise idea. Bring a complete change of clothes packed in a waterproof bag, matches or a butane lighter, flashlight, extra water and enough food for an unplanned night on the river. A compact space blanket is a good idea, too, as is a first-aid kit, extra paddle and boat repair kit. This can be duct tape or some thin pieces of tin and "liquid metal" that you can use to patch a hole if you run into a sharp rock.



When planning your float-fishing trip, make sure you factor in time to fish and leave plenty of time before dark to reach your take-out point. Left: photo by Dwight Dyke. Top: photo by Gerald Almy. Above: photo by Soc Clay.

5 *Not bringing the right fishing gear.* A classic example of not bringing the right fishing gear came to me one day many years ago when

I only packed a spinning outfit and found a huge bed of spawning bluegills in a back eddy. The fish would not take lures, but my partner, showing more foresight, had brought a fly rod. The outsized sunfish—some weighing up to a pound—sipped in his sponge rubber flies greedily. Since that experience, and others where I've encountered smallmouths feeding exclusively on surface insects, I've always carried both fly and spin tackle on floats.

No fancy gear is required. A lightweight spin rod of 5½-6½ feet with a reel spooled with 4-6 pound line will do for most lure and bait fishing. For fly fishing, use an 8-9 foot rod with a reel taking a 5-7 weight forward floating line and leader of 7-12 feet, tapering to a 4-8 pound tippet.

Bring an assortment of lures such as small crankbaits, spinnerbaits, rubber-tailed grubs, spinners, thin-minnow plugs and small soft plastic jerkbaits. For flies, stock a selection of sponge rubber spiders, poppers, streamers and buggy-looking nymphs. If you really want to be prepared, you can add bait such as hellgrammites, minnows, madtoms or crayfish. But only rarely have I found natural offerings necessary to score on float trips. Usually a broad selection of lures and flies will do the job.

It is important, though, to have at least several different types of artificials on hand. That way you can exploit one of the major advantages of float fishing—being able to try different lures/flyes/retrieves as you drift down in the current, until you discover a pattern. Once a lure or fly and particular retrieve proves effective, you can then concentrate on that for the rest of the trip, or until the fishes' tastes change.

6 *Picking the wrong boat for your needs.* Three types of craft are usually used for float-fishing in Virginia—canoes, johnboats and rubber rafts. Rafts are suitable for float-fishing if they are constructed of a heavy material and you are not going to encounter many sharp

rocks. They tend to put the occupants low in the water, however, making fishing more difficult. In general, I reserve these for short trips and family outings that are as much for fun as serious fishing.

Johnboats are used by many anglers. They have the advantages of comfort and stability and their seats put you higher up than rafts. If the freedom to get up and occasionally stretch your legs and carefully move around a bit is high on your list, these are the craft to choose. They hold lots of gear, are rugged and are also good for family trips. Ten to 14-foot lengths are best.

Johnboats cannot be maneuvered quickly, though, to shoot through narrow openings in rapids. And they are a drudgery to paddle through long, slow pools that may not be good fishing water. In those situations, opt for a canoe. Fifteen to 18-foot models in fiberglass, Kevlar or aluminum are suitable. These can be steered easily to avoid midstream obstructions and slip quickly through poor fishing water. They also hold lots of gear for extended overnight floats. Even with a canoe, however, there may be some white-water stretches that you'll want to portage around.

7 *Not paying attention to boat handling.* I have to confess this is a problem I haven't totally overcome in 25 years of float fishing. When a choice piece of water cries out for a cast, I'm often too weak to resist and make it, even if it's my turn to be steering the boat and a rock or riffle is looming a short distance ahead.

Thankfully, these mistakes have typically just yielded a jarring bump, another dent in the johnboat or canoe, and an irate partner. But in fast water or heavy rapids, the consequence of not paying sufficient attention to boat handling could be much more severe. If the water is shallow, you may have to jump out and pry the boat off the rock. In deep, fast water the chances of capsizing and injury are real.

Always be sure one person is in charge of handling the boat at any time. They should paddle the boat

so it avoids rocks in slow sections. And they should tell the other person to join in with a second paddle if a serious rapid has to be negotiated or if they need help. And if you flub up and see that you're going to hit something, always warn the other person so they aren't taken by surprise and jarred out of their seat.

Quite often on floats, both people can fish as the boat simply drifts freely. But when attention is required, someone should be in charge. Not only is it unpleasant to hit rocks, but the noise scares fish.

8 *Choosing dangerous waters.* This is a sure way to ruin a float trip. Even if you don't capsize trying to shoot the rapids, you may worry about the possibility enough so that it puts a damper on the whole trip. Plenty of good fishing can be found on safe stretches with just riffles and modest rapids to negotiate.

Always talk to someone who knows the float you plan to take before embarking. Find out about any dams or whitewater stretches and when portaging is required. Also, tell someone when you expect to finish the trip, so they can notify authorities if you don't return on time. Very few stretches of Virginia's rivers are especially dangerous, but there are some. Be aware of what lies ahead on your trip and you'll find it a more relaxing one.

9 *Not stopping enough.* This is a common mistake among novices. After all, it's called "float"-fishing, isn't it?

Casting as the boat drifts downstream is the major way you'll take fish on a float, but this shouldn't be your only approach. Often, you'll fool some of the heftiest fish by stopping and probing prime areas more thoroughly. You can either anchor out and fish from the boat or pull the craft onto an island and wade-fish. I've taken up to 30 bass from a single pool by stopping where you could only have caught a handful by casting as you drifted through.

The key is to pick the best spots for such thorough probing. You

don't want to waste time stopping just anywhere or you'll never reach the take-out point. Some places just have all the right habitat conditions to hold good numbers of fish and require extra time. The best way to discover these is by making the float more than once and marking on your topo prime fish-holding lies.

10 *Spooking fish.* Often in summer, waters are low and glass-clear. While smaller fish may be gullible, it takes extra care to avoid spooking larger specimens under these circumstances. Putting indoor/outdoor carpeting on the bottom of your boat helps dampen noises. Also, try not to thump paddles or rods against the boat, slide tackle boxes across the floor or ram into rocks.

Avoid being spotted by the fish, too. Don't stand up except occasionally for a brief moment to stretch.

Lure and fly presentation require careful consideration. You don't want to cast directly upstream, because the boat has just moved through that water, spooking any fish present. Casts directly downstream are a poor choice, too, because the lure moving up strongly against current doesn't realistically imitate the actions of a wounded baitfish or dislodged insect. It also pulls the offering straight toward the boat, which is approaching the lure with the current. This makes refusals likely at the last moment as the fish see the craft.

The best way to combat these problems is to cast to the sides, or quarter slightly up or downstream. This takes the lure a maximum distance away from the boat, in undisturbed water, and allows the most time for a fish to follow and strike before spooking. The lure or fly will move slightly downstream because of the boat's drift, but primarily swings crossways, presenting itself to lots of fish at a good angle for them to strike without being spooked. □

Gerald Almy has been a full-time outdoor writer for over 17 years. He is currently a hunting and fishing editor on the staff of Sports Afield.



Make sure you know what you're getting into before you start a float-fishing trip. Find out if you'll have to portage or face rapids, and make sure you've chosen a good fishing section. Then, relax and enjoy yourself! Top: photo by Tim Wright. Above: photo by Gerald Almy.



Purple loosestrife: a nightmare in our wetlands; photo by T. G. Scott, Jr.

**PLANT
PLAQUE**

*The pretty purple
loosestrife plant in
our gardens poses a
serious threat to the
health of our
wetlands.*

by Stephen Capel

About 10 years ago our family was about halfway between Syracuse and Rochester, New York on the homeward leg of a long vacation. The scenery was enjoyably rural, but no one was paying a whole lot of attention by that time. We came to a flat, marshy area and one of my daughters exclaimed, "Wow, that sure is a pretty, purple field!" I explained that it looked like a large marsh, but I didn't know what the purple-flowered plant was that dominated the view.

Several years later while reading some wetlands management literature, I was reminded of that day. The article described the terrific problem that wetland managers were having in coping with a plant called purple loosestrife. That beautiful purple plant we had seen on the road had been introduced into the U.S. from Eurasia and been used widely across the country in landscaping and in the bee industry as a pollen producer. The paper described a good, kind "Dr. Jekyll" type of plant that, given the right ecological conditions, could turn into an aggressive, invasive purple plant version of "Mr. Hyde." In other words, it was indeed a purple plague!

Loosestrife, it seems, will replace darn near every desirable plant in a marsh, including virtually all waterfowl and muskrat foods, livestock forages, and a host of rare and endangered plants. The annual North American economic loss due to purple loosestrife has been calculated at almost \$230,000,000.



*Though pretty as a picture, the exotic purple loosestrife (*Lythrum salicaria*) invades wetlands and replaces native species beneficial to wildlife; photo by Nicky Staunton.*

It seems that none of the normal enemies of purple loosestrife found in its native habitat exist in North America. Thus, when the plant achieves a foothold, it has shown a tremendous ability to invade wet areas—wet meadows, shallow, seasonally flooded wetlands, low spots in fields and similar situations.

A typical 4-foot loosestrife plant can produce as many as 300,000 seeds, and some plants will grow to 10 feet tall with proportionately larger flowering stalks! The history of the plant in places like Minnesota indicates that it was present for perhaps 50-60 years before the right climatic conditions occurred—and then, "Katy, bar the door!" In one season they saw it move from a nice, purple fringe around a few lakes in Minneapolis to a dominating purple

fringe all along the Mississippi River.

As I recalled that drive 10 years ago and that broad expanse of purple, I remember thinking, "Boy, am I glad that stuff likes more northern climates." At that time loosestrife had confined its invasive energies to marshes from Massachusetts to Illinois to Oregon and north. This was an early warning, however. It alerted me to the potential dangers our marshes might face. Over the next few years, I read the occasional paper describing yet another failed control technique or a new range expansion into Missouri or Pennsylvania. Some states are spending as much as \$300,000/year in control efforts, and are still losing ground.

In 1990, while discussing the problem the Virginia Department of

Game and Inland Fisheries (VDGIF) was having controlling phragmites or reed grass in our marshes, a biologist with the Division of Natural Heritage asked if we had been seeing any purple loosestrife. She indicated that there were more than 17 counties in the Commonwealth with naturalized stands, including an extensive stand near Coeburn in far southwest Virginia. It was obviously time to take a second look. As of 1992, the list has grown to 25 counties, and the stand near Coeburn now occupies about 20 acres along the Powell River.

A check with surrounding states found a 45-acre stand of purple loosestrife along a powerline in North Carolina, and increasing our concerns, we also discovered a number of nurseries in Virginia were selling loosestrife, typically as potted cuttings.

It turns out that a lot of nurseries have been selling loosestrife for a long time, and, for the most part, the plant had not proven to be invasive in Virginia. Most of these plants have been taken home to nice flower beds, well away from any wet meadows, and probably have posed few problems. However, closer examination of the few Virginia loosestrife stands has indicated that they were "escapes" and not transported by wildlife or from washing downstream from a headwaters source.

It appears that Virginia has perhaps as much as 100,000 acres that could be claimed by loosestrife if the right conditions prevail. At a time when waterfowl habitat is declining, this is certainly not welcome news. Many of our threatened and endangered plants also stand to face even more serious threats by loosestrife invasion.

Are we sitting on a time bomb in Virginia? No one really knows the full answer to that question. Based on extremely limited surveys, we have seen the

invasion almost double in the past decade. However, very few sites where it *could* spread to have been invaded—yet.

The Virginia Joint Venture Board, a group of 30 federal, state and private organizations concerned with wetlands, approached the Virginia Board of Agriculture and Consumer Services about placing purple loosestrife on the Noxious Weed List and in the Seed Law. This would have removed it from commerce in Virginia. The board indicated they would consider such a move if Virginians can't be convinced to voluntarily quit selling and using loosestrife in their gardens.

To date, we have been working with the Virginia Nurserymen's Association to reduce the marketing of loosestrife in Virginia. Ten years ago no one envisioned that the plant had the potential to affect our wetland resources. What little was known about the plant in Virginia at the time was that it seemed to make a nice, perennial plant with a colorful, magenta flower spike which bloomed over a long period in the summer. Today, we know better.

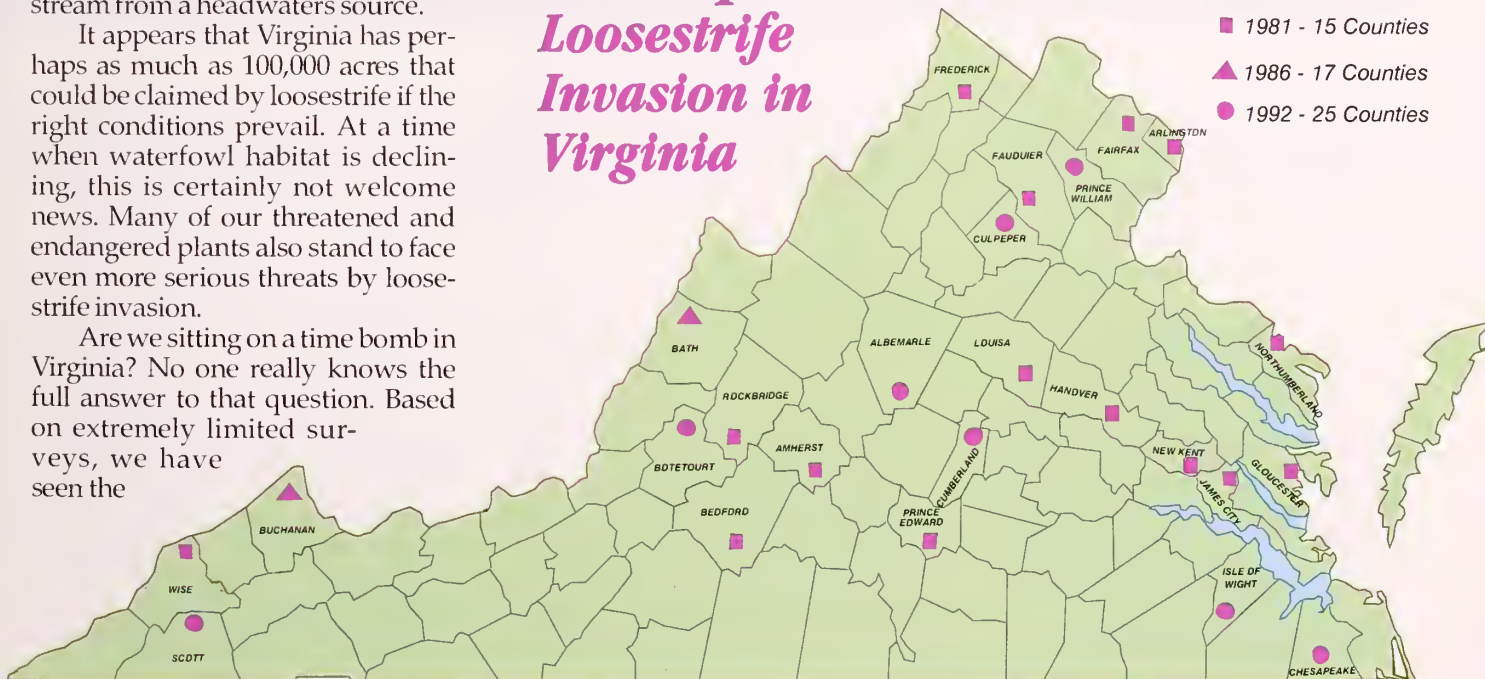
The question is: What should be done in Virginia? Certainly, anyone

living near wetlands should avoid the use of purple loosestrife, no matter how pretty it is! Nurseries would best serve Virginia and its native wildlife and plants by seeking and offering to their customers alternative plants that are not invasive. But this is not easy. Loosestrife travels under a variety of horticultural aliases, like morden pink, rose queen, purple spire, columbia pink, fire candle, the rocket, morden rose, dropmore purple, the beacon, and roseum superbum. Thus, loosestrife is very much the wolf in sheep's clothing! Pay close attention to any purple-colored perennial and ask questions to satisfy yourself that you are not bringing loosestrife, or *Lythrum salicaria*, home to your garden!

Once Virginians realize that purple loosestrife is not just a pretty plant, but a real "purple plague," those of us who hold marshes, ducks, wet meadows, rails, herons, and singing sedge wrens close to our hearts will breathe a sigh of relief. This is one threat to our wildlife we can control—if we all work together.

Stephen Capel is a farm and wetlands biologist supervisor with the Wildlife Division of VDGIF.

The Purple Loosestrife Invasion in Virginia





Bringing in the Big Daddys

Hooking the biggest smallmouths in our streams takes more than a bit of finesse. You need to know where the bass are hiding and how to fish for them.

by Harry Murray

Virginia's rivers offer some of the finest fishing for large smallmouth bass that can be found anywhere in the country. The profuse network of our river systems and the natural affinity of the smallmouth bass to these streams assure the prospective Virginia an-

gler that he or she is hardly more than a long cast away from this worthy adversary.

And worthy he is! Keep in mind that our largest old bass did not get that way by being stupid. From the time they were fingerlings being chased by kingfishers, water snakes and their larger brethren, until adulthood when fishermen became a major threat, they have had to



photo by Soc Clay

changes. As our seasons unfolds, both the stream conditions and the available food are altered. Thus, by investigating our streams, starting in the spring and proceeding until fall, we can gain an insight into the best fishing tactics to use on the large bass.

During the spring, Virginia's rivers provide conditions much like the opening line of many jokes which start with "there is some good news and some bad news." The "good news" is that the bass are not very wary in these high water levels; this is the primary reason we see so many large bass taken in the spring. The "bad news" is that it can be difficult to locate the feeding bass and to get our offerings down to them through all that water; this is the reason we don't see huge numbers of large bass taken in the spring.

Thus, since we do not have to be greatly concerned about scaring the bass, we can devote our major efforts to determining where the big fish will be feeding and how to best fish these areas.

How about the punch line first? Fadley's Rock, Flat Rock, the Clem/Dinges Rock—these are all names of specific locations on the North Fork of the Shenandoah River where local anglers have historically fished in the spring in their bids to take large bass. The stories I've heard of the big bass that have come from these areas over the past 50 years make my head spin. But why are the bass here? Because all three spots are characterized by huge, automobile-sized boulders located in deep, strong runs. During the spring, when the high water levels cause the fast currents to race downstream, these boulders provide protection for the bass. The bass can hold above, below, beside or under the edges of these boulders and feed comfortably.

And coming off a cold winter, I can assure you that they feed aggressively. Our job is to determine how to best get our flies and lures down to these fish. We must learn to cope with the racing currents, for it is the speed of current more than the depth of the water which will keep

us from getting the depth we need.

In order to achieve this, I like to spend a few minutes evaluating the specific area I plan to fish for the sole purpose of positioning myself at the best spot in the river so I can effectively swim my flies and lures right along the bottom around the boulders. I must be in control of my offerings as they drift into the hot spot, and I can achieve this only by negating any fast currents that may sweep my flies and lures up off the bottom.

For example, I usually start my bass fishing each year with a trip to the "Clem/Dinges Rock" water mentioned above, partly from nostalgia, but mostly because it normally produces several good smallmouths. There are literally thousands of such areas throughout Virginia's smallmouth rivers.

A ledge about 30 feet long and five feet thick lies longways across the river in midstream, creating a five foot deep cut behind it the size of your living room. Some water splashes over the ledge, but the area immediately downstream remains a protected haven for the bass. One of my most productive flies in these areas is a size 4 Shenk's Black Sculpin which matches the mad-toms and sculpin minnows which the bass feed upon here. I've found that if I wade in below and to the side of these ledges, I can cast my flies up into the protected areas. And, by keeping my rod tip high, I can negate the racing currents coming around the end of the ledge. Once the streamer reaches the bottom, a slow line-hand stripping action usually produces a solid strike. With my spinning or casting outfit, I do well here with a 1/8 or 1/4 ounce Marabou or Grub Tail Jig bounced across the bottom.

Many boulder-strewn areas lie in more moderate currents in our large rivers and can be effectively fished with the conventional down and across presentation with streamers, nymphs, deep running plugs and spinnerbaits. In order to take the largest fish consistently with this approach, one does not randomly cover the water in a shotgun fashion, but rather positions

maintain a constant vigilance in order to survive.

The flourishing success of the smallmouth bass in Virginia is directly attributable to their ability to adapt to diverse stream conditions. That is, they have learned when, where and how to feed in a successful manner.

By gaining a fuller understanding of these two traits, their natural wary nature and their normal feeding habits, you can greatly increase your chances to take large bass more consistently.

The immediate world of a bass is influenced primarily by seasonal

oneself above and to the side of the boulders and carefully drops the offering at the precise spot upstream that will allow it to be fished convincingly along the bottom when it reaches the anticipated feeding areas.

With the approach of summer, our rivers normally drop to flow at a more pleasant pace than we experienced during the spring. This makes them easier to navigate, and wade or float into almost any spot we deem worthy. However, the big bass become much more wary now, necessitating a more cautious approach to prevent spooking them. A tackle box scraped across the bottom of a boat, or a splashy approach as one is wading, will kill the chances of taking the wise, large bass hiding out there.

We must still evaluate the best feeding areas holding the largest fish, but now we must also carefully determine the proper cautious approach and take advantage of every form of concealment the river affords.

For example, several years ago I was guiding a very capable fly-fisherman on the South Fork of the Shenandoah River, and we were having trouble catching anything but small fish. The river was unusually low and clear and I suspected we were spooking the larger bass. While my client was fishing, I got out of the river and climbed a high bank and quietly walked upstream along the river. Shortly, I spotted two very large bass feeding in the shade at the lower end of an island. I showed my client where the bass were and he quietly waded in that direction, even crawling the last 20 yards. Before he could get close enough to make a cast, the bass sensed his presence and slipped gently out into deeper water. With this startling lesson before us, I knew we had our work cut out for us.

I felt it was imperative to conceal our approach from the fish if we expected to catch the larger bass. In order to do this, I selected a section of the river which had many ledge outcroppings laced with thick aquatic weed growth. By taking ad-



vantage of these natural features, we were able to fish over and beyond them and take a fair number of large bass.

Understanding the traits of large bass, and taking advantage of natural or man-made circumstances, will also help us to catch these large fish. For example, several years ago, as the members of one of my smallmouth bass fly-fishing schools began rigging their tackle, I noticed that the river had turned slightly discolored from construction work on a small dam upstream. I explained to the students that the

To catch trophy smallmouths, you must understand their habits and take advantage of natural or man-made circumstances like low light levels, discolored waters, and shallow feeding areas along banks. Remember, too, that fish are easily spooked in our clear, summer waters. Photos above and right by Soc Clay.

smallmouth bass, not liking bright sunlight, might feed more aggressively in this slightly discolored water. My expectations were amply gratified. Dr. Greg Johnson, a beginning smallmouth angler, waded out into the river and in short order landed two large bass, each just slightly under four pounds.

This trait of the bass to feed

more actively in lower light levels often works well with many angler's schedules. That is, we can slip out and hit our favorite areas for the last hour of fading daylight with a reasonable expectation of taking several good bass. At this time of the evening, large bass often move out onto the shallow tails of the pools in order to feed upon the vulnerable shiner minnows living there. An effective ploy which helps to keep from scaring the bass is to approach them from downstream. By wading carefully up into the very tail of the pool and casting up or up and across stream, one can make some truly impressive catches. Fly-fishermen can do well here by using a size 6 Silver Outcast Streamer, while spin fishermen can expect to make great catches with a size 7 Silver Floating Rapala. Keep in mind that it is important to make your offering look enticing to the bass with a minimal amount of movement. There is an abundance of natural food available to the bass in this area, and if we use a fast retrieve, they may simply go for the easier to catch real minnows and avoid our offerings.

The shallows along the banks are also hotspots for big bass in the evenings. Although apparently feeling vulnerable here in midday, the low light level now prompts them to invade these areas with gusto. I like to fish these feeding areas by wading downstream a comfortable casting distance out and dropping a sur-

face plug such as a Tiny Torpedo or a hair bug, such as the Shenandoah Hair Popper, right against the bank. I manipulate the lure gently close to the bank and impart a slightly more vigorous action as I fish it out into the river. Remember, the feeding stations are frequently adjacent to the bank, so don't be in a hurry to retrieve the lure into open water. Also, big bass seem to have a natural affinity to the slowest moving surface lures. I don't know if this is because they are slow, lazy, or simply because they know they are the bosses and can set their own rules. For whatever reason, I am a great believer in the slowest possible retrieve of surface lures when I'm after large bass.

September brings cooling rivers which often seem to spark the large bass appetite. Although they may be distributed throughout our rivers in a broad variety of water types, by this time of the year, each large bass has a preferred home and feeding area. Frequently, especially if all of the necessary features are present, this may be a fairly small portion of the river. Such was the case with "Patch."

Patch was an exceptionally large smallmouth bass who made his home in a small deep cut between two ledges in mid-river. Normally he fed around a close-by "patch" of aquatic grass about 10 feet square—hence his name. The first time I caught Patch, he hit a size 4 Olive Strymph worked right along the bottom. The achievement was totally luck, for I had no idea he was there. A week later I tried Patch again, but found he was not as vulnerable as earlier; he swung out and investigated several offerings, but carefully avoided them. Over the next month, I fished for Patch frequently, coming to the conclusion this fellow was no dunce. In fact, I suspected he had been away to school, probably on a scholastic scholarship. I was able to land him only one more time before winter closed her chilling doors upon us.

Patch's home was typical of that selected by many large bass, and recognizing those areas aids greatly in putting the box score in our favor.

They are characterized primarily by the security they afford the bass, frequently in the form of overhead cover such as ledges or logs in water ranging from three to five feet deep. There is almost always a strong, but not overwhelming, current through the area, and they are close to a good food source such as gravel bars, grass beds or riffles.

The final act of our large bass drama will be played out in late fall just before winter drops the curtain. Be prepared for a thrilling climax!

As the cool nights chill the rivers, the bass predictably move into the deeper cuts and pools, often concentrating to an amazing degree, and becoming more willing to hit our flies and lures.

Many of the deep pools can be very effectively fished with plugs such as Mann's Deep Crankbaits and the Rebel Deep Crawfish by crawling them slowly across the stream bottom. Streamers such as Shenk's Sculpin and Shenk's White Streamer in size 4 seldom let me down. If there is a strong current or water over four feet deep, I frequently use a fast sinking tip line to help fish my streamers slowly along the stream bottom.

Although most of the Old Dominion's smallmouth rivers hold many more large bass than most anglers realize, here are a few sections which historically yield quite worthy fish:

James River: From Scottsville downstream to Tuckahoe Island on the Henrico County line.

Rappahannock River: From Kelly's Ford at Route 672 downstream to Route 95.

Rapidan River: From Germanna Bridge on Route 3 downstream to the Rappahannock River.

North Fork of the Shenandoah River: From Edinburg on Route 11 downstream to Route 522 north of Riverton.

South Fork of the Shenandoah River: From the 675 bridge at Luray downstream to Karo Landing south of Front Royal. □

Harry Murray is a freelance writer who teaches fishing and fly tying in Edinburg, Virginia.



The Long-tailed Weasel



Virginia's Wildlife

by John Pagels

As I approached one of the last traps in the line, I muttered "finally." Of course, I couldn't tell what the aluminum Sherman live-trap contained, but the door was closed. As I brought the trap close to my face so that I could peer into the slightly opened door, I realized that the trap seemed a bit too heavy—and, well, a little odoriferous. The door opens inward, toward the animal, and our eyes were inches apart as the weasel lunged for the opening. It didn't make it. Hey, I was trapping flying squirrels!

How do you get a big weasel out of a little trap if you can't open the trap? Simple. One, you regain your composure and, two, you pull out that long wire that holds the trap together. Not only did an adult long-tailed weasel scamper away, but a dead and partially consumed adult red squirrel rolled out of the trap. In the early morning haze, I knew that neither of the subjects could have been in the trap for more than about 40 minutes.

In addition to their sometimes very active anal glands—the skunk is the ultimate in that department—most members of the weasel family have relatively short legs. And similar to the ferrets, mink and least weasel, the long-tailed weasel, *Mustela frenata*, has a very slender, almost tube-like body and very short legs, adaptations for getting into the burrows and hiding places of their prey. Among mammals, weasels are about as close as mammals get to snakes (their distant reptilian relatives) from the standpoint of form and function; in this case, slender bodies for small spaces.

A long slender body is not the only anatomical adaptation serving

this highly efficient predator; it also must be able to kill and consume its prey, and weasels are second only to members of the cat family in the specializations of their teeth for a diet of flesh. The canines are long and sharp-pointed as in most carnivores, and the teeth behind the canines, the anterior-most premolars and molars, are pointed and have knife-like cutting edges that pierce and slice flesh rather than crush it.

When it comes to specializations or generalizations, however, there are usually trade-offs. For example, long dense fur, important for insulation, would be detrimental to getting around in tight spots. The small size and tube-like body of weasels also lead to special energy problems. The problems include a high metabolic rate and, except for brief rest periods, these small dwellers of energy hunt more or less day and night. Indeed, although some think the weasel is primarily a nocturnal species, in a live-trapping study in Colorado, more than 90 per cent of the captures were in daylight hours. The specimen that was in my live trap with the red squirrel was probably captured in the early morning light, because red squirrels are normally diurnal.

In a summary and rebuke of views on weasel behavior, G. Svendsen noted how they have a reputation as bloodthirsty, wandering demons of carnage, and that weasels alone seem to revel in slaughter for its own sake. Svendsen observed that weasel behavior must be viewed as a highly specialized and adapted carnivorous way of life. Certainly their quick movements and seemingly curious nature help them catch prey, and the same quick movements help them not to be prey to larger predators. As far as

slaughter for its own sake, it has been observed that what appear to be killings that go untouched are actually caches of food to which the weasel returns for a meal at a later time.

A host of small organisms serve as prey to the long-tailed weasel, including many different kinds of mice and voles, shrews, young rabbits, chipmunks, an occasional bird and egg, and sometimes grasshoppers. Around farms, they can mess up their reputations by an occasional foray into a chicken coop, while on the other hand doing a turn as outstanding "mousers" and "ratters" without getting credit.

They have even been known to squeeze into a man-made live trap for a red squirrel breakfast!

John Pagels is a biologist at Virginia Commonwealth University who specializes in Virginia mammals.



An exquisite predator, the long-tailed weasel (*Mustela frenata*) is found throughout Virginia, often near human haunts. But, because of its secretive nature, the long-tailed weasel is seldom seen; photos *this page and opposite* by Maslowski.



Author Bob Gooch on Dragon Run; photo by Dwight Dyke.

Dragon Run: A River of Wilderness



by Bob Gooch

There are rivers...and then there are rivers. Dragon Run is one of these.

Known formally as Dragon Run, local people simply refer to it as "The Dragon." My son-in-law Jim Hallissy and I had other names for it that late October day as dusk found

us somewhere between the New Dragon Bridge and U. S. Highway 17, none particularly complimentary. Advised that it would take us a mere half day to canoe that stretch, we had already been on the stream for over 10 hours and the end seemed nowhere in sight. The spectacular wilderness had simply swallowed us; we had seen no signs of civilization since launching the canoe early that morning.

And now rain was threatening. We strained our ears for sounds of traffic from the busy highway— but in vain. Only night sounds greeted our anxious ears as dusk quickly gave way to darkness and we found ourselves groping down the silent little stream—portaging as much as paddling. "The real mysteries of a swamp come alive at night." I had read that somewhere.

There seemed to be no end to beaver dams and downed trees that blocked our route. "Might have to spend the night in the swamp," muttered Jim. Regardless of what we called it, the Dragon had earned our respect.

Dragon Run splits the Middle Peninsula as it forms near Tappahannock and meanders for 35 miles though a vast 7,000-acre swamp to flow into the Piankatank River below Glens in Gloucester County. Enroute it forms the boundaries between King and Queen and Middlesex Counties and between Middlesex and Gloucester Counties. Upstream it also forms part of the boundary between Essex and King and Queen Counties.

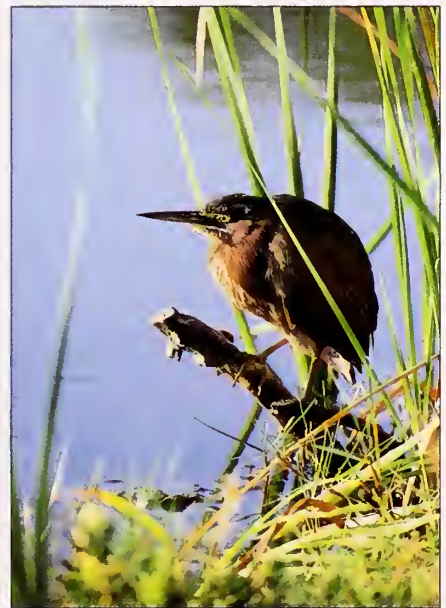
In addition to U. S. Highway 17, several secondary highways cross the stream, but otherwise access to it usually means hiking for a mile or more through rugged back country, most often, swamp country. Don't try it. In addition to being guilty of trespass, the novice can quickly become lost in the maze of forests and swamps.

Dragon Run has caught the fancy of outdoor people for generations. The river is rich in fish populations and the swamp through which it flows abounds in game. The Smithsonian Institution ranked the

Dragon second in ecological significance out of 232 areas covering 12,600 square miles in the Chesapeake Bay region.

Efforts to give Dragon Run better protection, to preserve for future generations its unique wilderness qualities, have been blunted by its status as private land. Most of the land through which it twists and winds is in farms and timberlands. Back in 1971 it was the first stream in the state to be considered for Scenic River designation. The Commission of Outdoor Recreation hoped such a designation would open the way to canoe access points and possibly several campsites. But local opposition reared its head, and the move was dropped.

Still, possibly some good came from the aborted attempt. Alarmed by development moves that threatened the unique ecosystem, local governments moved on their own to protect it. The result was a plan to create a 100-foot buffer around the swamp which would hopefully protect it from further encroachment. It's basically a plan that places environmental restrictions on private landowners, mostly farmers and timber owners. It's an encouraging move, but one hampered by the fact



Dragon Run is one of VA's few remaining unspoiled rivers. More swamp than river throughout most of its length, the Dragon is home to a multitude of wildlife, including the green-backed heron pictured above; photo by Dwight Dyke.

that Gloucester County has not yet joined Essex, King and Queen, and Middlesex in adopting the plan. Pockets of opposition are too strong in rapidly growing Gloucester.

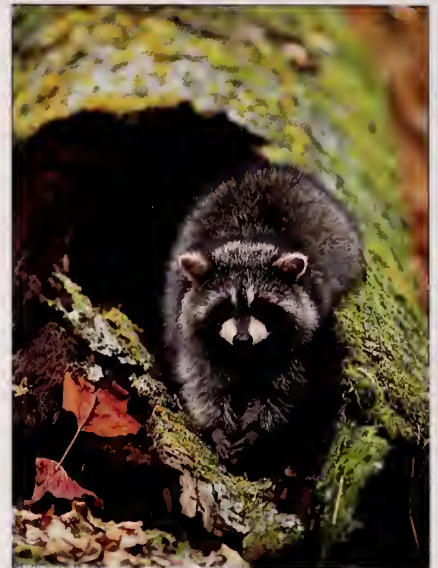
At about the same time the conservation zone was being created, a group of private citizens, mostly anglers, canoeists, and hunters, banded together to form the Friends of Dragon Run. Charlie Carter of Saluda, who has roamed the swamp most of his young life, serves as chairman of the board of the group. With the help of the Chesapeake Bay Foundation, the group bought a 200-acre tract in the middle of the swamp and gave it to the Virginia Outdoors Foundation for safekeeping. The area, between Mascot and the U. S. Highway bridge, includes a 26-acre tract known as Big Island.

Government and citizen efforts to protect the stream and swamp have been aided significantly by the formidable nature of the region which has protected and preserved it for generations. Yes, Dragon Run is the "then-there-are-other-rivers" river. It demands—and gets respect.

Possibly because it was once used to float logs to the mills, Dragon Run is considered a public waterway. That seems to be generally accepted, but it runs through private land. Those who leave the stream subject themselves to trespass charges.

Currently, there is no formal access to the stream, only that provided by the relatively restricted highway right-of-ways of the public roads that cross it. But stop at any of those highway bridges and you will find well-used slides near the bridges that have been used to slip canoes into the river. Some have been modestly improved. One is sprinkled with a scattering of crushed stone. Parking is also limited and is a problem unless you make arrangements with a local landowner. The shoulders of the roads offer limited parking space.

Still, there is a modest amount of canoe travel on the stream. The furthest upstream access is that provided by Byrd's Bridge on Secondary Route 604 between Center Cross and Ino. It's approximately 12 miles



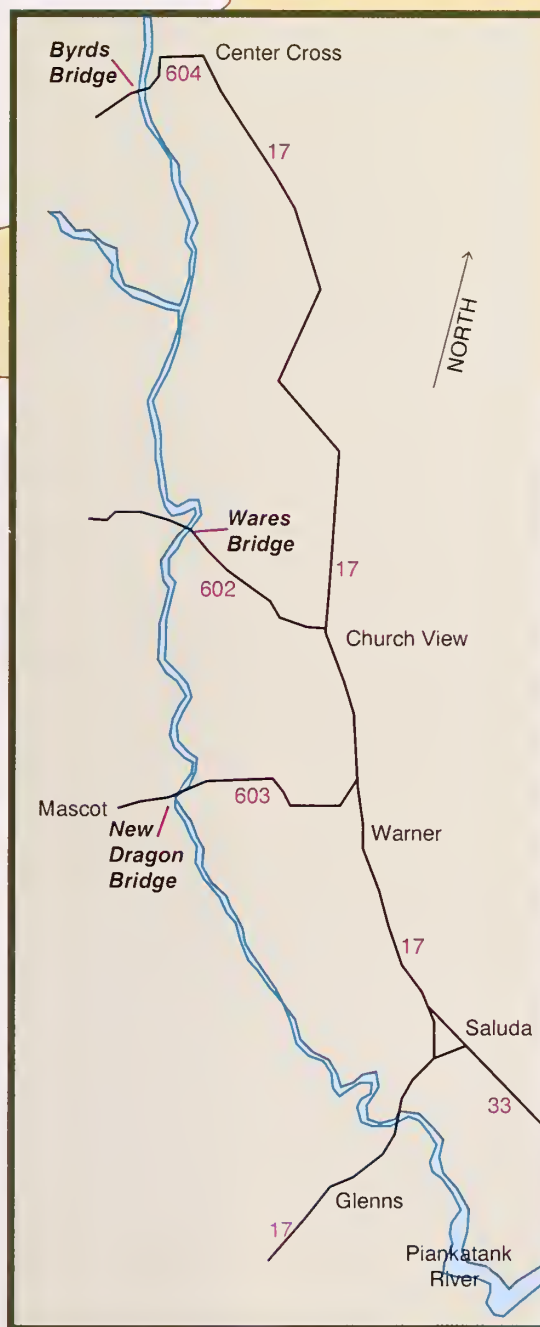
Dragon Run



The otter (above), great blue heron (opposite, below), and the raccoon (opposite, top), are three of Dragon Run's famous inhabitants; photos by Bill Lea. Be prepared to portage often while canoeing the Dragon (opposite, center), with beaver dams being plentiful throughout the river; photo by Lynda Richardson.

to the next access, Wares Bridge, which carries Secondary Route 602 across the stream. Approximately five miles downstream from Byrd's Bridge, Exol Swamp, a major tributary, enters the stream. "This section of the stream gets real narrow when it's low," advised a fisherman I talked to on Byrd's Bridge. The access on the west end of the bridge seemed to have been used by canoes only.

The section from Wares Bridge to Mascot where Secondary Route



Note: Currently, there is no formal public access to Dragon Run. Access is restricted to highway right-of-ways at bridges crossing the river. Be sure to plan any canoe trips carefully, as beaver dams, blowdowns and an absence of landmarks often make navigation difficult in this river/swamp environment.

603 crosses the stream is shorter, possibly seven miles. New Dragon Bridge carries traffic across the river here. It's probably the stretch Jim and I should have canoed that late autumn day. Maybe I misunderstood the advice I had received.

Now comes the tough part. Figure on at least 10 miles between the New Dragon Bridge and the U. S. Highway 17 Bridge between Glenns and Saluda. The stream is larger here, and easier to canoe—except for several dozen blow-downs and an ever-growing number of beaver dams. "Even someone who knows what he is doing needs at least 12 hours to run that stretch," someone told us later when we related our experience.

Downstream from U. S. Highway 17, the Dragon is reasonably clear, but plan on encountering a few downed trees and beaver dams. From there to the Piankatank River it's approximately three miles and a bit further to Deep Point Landing where you can leave the river.

Dragon Run is noted for its chain pickerel, but it also offers a rich variety of other fish, including bluegills, catfish, crappie, largemouth bass, striped bass, sunfish, and white and yellow perch.

Beavers are overly abundant. During our trip, deer crashed away from the river, and a flock of turkeys erupted from their roost overhead as we moved down the stream. Wood ducks flushed ahead of us. Other wildlife includes bald eagles, hawks, herons, muskrats, osprey, otter, raccoon, and a variety of songbirds.

Equally as fascinating as the fauna of Dismal Swamp is the flora. Majestic giant cypress, some with trunks eight or nine feet in diameter, are a dominant feature, but swamp timberlands composed of ash, dogwood, gum, red maple, river birch, and sycamore add to the richness of the flora. So do cardinal flower, mistletoe, mountain laurel, and wild plum. And how about cattail, duck potato, pickerel weed, and wild rice?

You'll feel lost much of the time, but stay with the current and eventually you'll reach your planned take-out point—probably much later than you planned.

Incidentally, Jim and I didn't spend the night in the swamp. Late that night, bedraggled and tired, but relieved, a state highway bridge loomed in darkness. A highway bridge never looked more welcome.

Despite its challenges, the Dragon will earn your respect—and eventually your love.

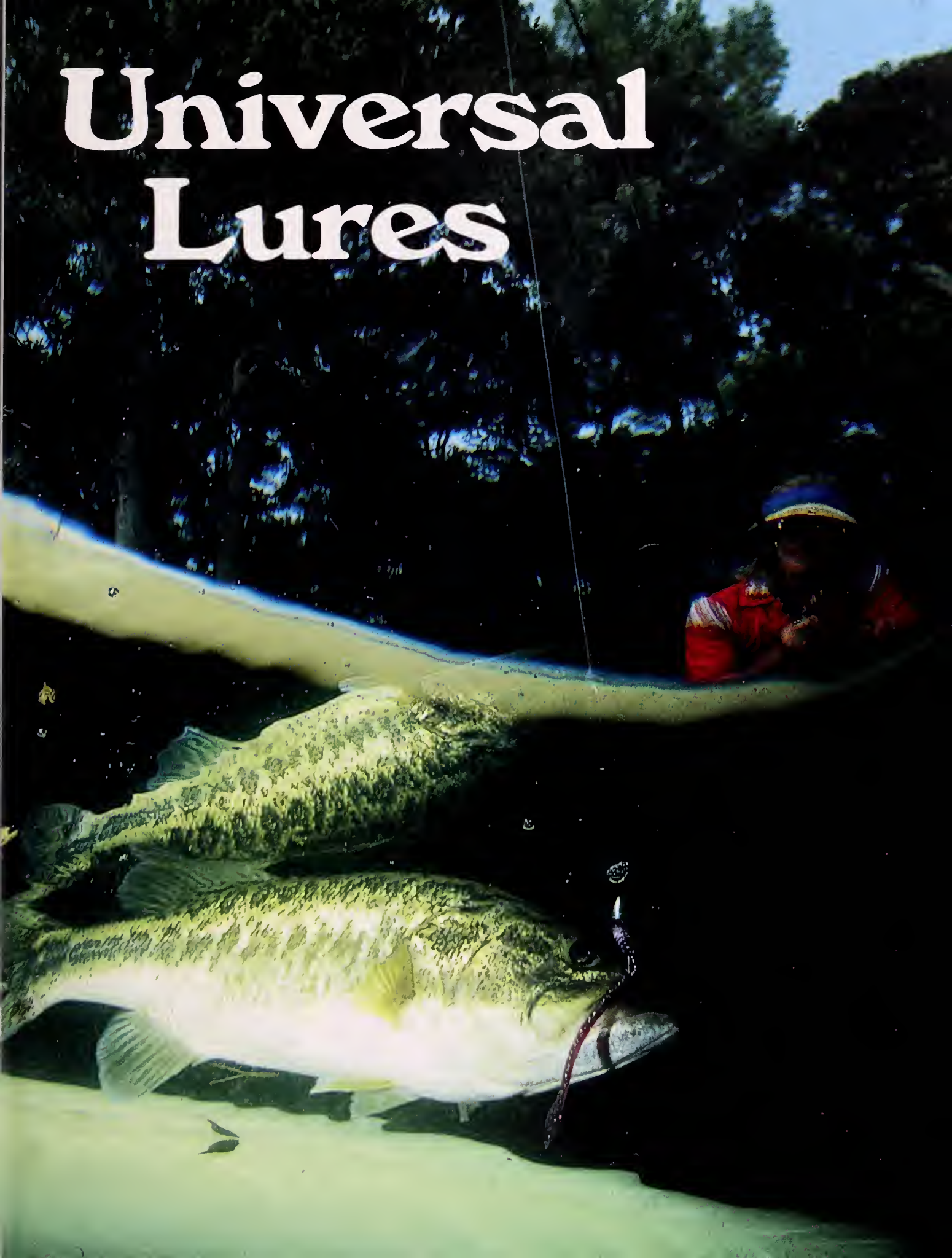
Bob Gooch is an outdoor newspaper columnist and author of several book on hunting and fishing. He lives in Troy.



Dragon Run has been ranked second in ecological significance out of 232 areas inventoried in the Chesapeake Bay region by the Smithsonian Institution. A group calling themselves "Friends of the Dragon Run" is working to preserve the river's integrity as a natural treasure. Above: The Dragon provides a perfect place for wood ducks to raise their young; photo by Joe MacHudspeth. Right: A treetop view of the Dragon; photo by Dwight Dyke.



Universal Lures



by Bruce Ingram

In ages past, poets and bards wrote of truths so universal they would ring true regardless of the civilization, the time, or the situation. We Virginians don't often tote the works of Chaucer, Shakespeare, and Milton on our angling escapades; nevertheless, the concept of universal truths is one that we also believe in, for there are lures so able to fetch such a variety of fish in so many different bodies of water, that no Old Dominion sportsman can really afford to be without them in his or her tackle box.

For the purposes of this article, I have narrowed this artificial arsenal to just five; and this quintet, I believe, will catch a wide variety of game fish from creeks, rivers, ponds, and lakes. The first lure on this elite list is the in-line spinner, often overshadowed in recent years by its more glamorous cousins—the spinnerbait and buzzbait. Yet, if I was restricted to just one lure and if I was told that my survival depended on my ability to catch fish, I would choose the humble, plain, old-fashioned spinner.

Though this bladed bait will attract redbreast sunfish, rock bass, bluegills, and all three members of the black bass family, it excels in enticing trout and chain pickerel. Brands such as Mepps, Panther Martin, Blue Fox, and Roostertail all perform well for salmonids and chains. An example of its effectiveness occurred last summer on a fishing trip I made to Craig's Creek. On consecutive casts, I caught a two-pound rainbow and a three-pound pickerel from the same submerged log. (Don't ask me how and why such a nice trout was in such an unlikely place in a warm-water stream such as Craig's Creek—I have no explanation.)

Later that same day, I employed that same spinner to catch several redbreasts and redeyes. And earlier in the year, the lure had performed admirably on some Potts Creek brown trout. In the past, I have used



dozen or so Rapalas in my tackle box. They vary in size and color, but I will take my 3 1/2" one with gold sides and a black back over all the others.

I typically tie on this lure first when I visit a stream—especially one that I am unfamiliar with. Over the years I have caught scores of smallies and bucketmouths with this lure, and it still runs as true as the day I purchased it. Other good minnow baits include those made



very small spinners for native brook trout in some of the state's mountain rills. Really, there are precious few game fish that can't be fooled by this flashing lure.

As to blade colors, many people follow this axiom: for clear water, use silver-bladed spinners; for muddy water or night fishing, tie on black-bladed models; and for all other situations, employ gold-bladed versions.

The only criticism that I would have about spinners is that they are not particularly good imitations for larger stream smallmouths or impoundment largemouths. But the second member of our universal lure selection certainly is—the floating-diving minnow plug. When most people think of minnow baits, they typically mention the various Rapala versions, and I possess a half

Page 27: Photo by Doug Stamm. This page (top): In-line spinners (Roostertail, Mepps, and Panther Martins) are versatile enough to attract sunfish, bluegills, trout and chain pickerel. Above: Floating/diving rapalas are excellent lures for large smallmouths and impoundment largemouths. Opposite page: Bomber Model A crankbaits and Bagley Kill'R Bs (top) work on aggressive largemouths, smallmouths, and panfish. Plastic worms (right) catch largemouth bass and crappies; and an assortment of jigs (far right) turn on stripers, crappies, smallmouths, largemouths, rainbows and rock bass; photos by Jim Schlender.

by Rebel, Bomber, Cordell, and A. C. Shiner.

Minnow plugs are also a superb trout lure though often an underutilized one for this species. For trout, I prefer the deeper running models in the 2 1/2" size. I also remove two of the treble hooks, taking into account a trout's smaller mouth. This also eliminates many of the snags that would be caused by working this bait along the bottom.

Whereas with bass I prefer to retrieve minnow baits in a steady manner with occasional pauses, for trout I like to rip this lure violently along the bottom in an erratic stop-and-go fashion. A reflex strike is obviously the goal here. Additionally, fish that have ignored repeated casts with other lures, flies, or baits can often be goaded into mauling an erratically retrieved Rapala.

Minnow baits are also exceptionally effective for a number of

But, oh, can these imitations produce on active game fish. Once on Lake Moomaw, I caught four nice largemouths in a matter of minutes from a school of aggressively foraging bass. And on a tributary to the New River, the same scenario was repeated recently when smallie after smallie savaged a Bomber Model A cast into their midst.

When fish aren't aggressive—and obviously that is how they are most of the time—a crayfish crank-

bait can still do the job. Neutral fish (by definition, fish that aren't feeding, yet ones that aren't turned off by a cold front or other negative condition) can still be turned on by a crankbait. Now is the time to slow down your retrieve and purposely run this lure into every underwater obstruction in the area.

Seek out such forms of cover as boulders, logs, and docks. Then have your crankbait lightly "kiss" these obstructions and cease your retrieve. When the lure begins to rise or when the retrieve commences again are the times when strikes will happen.

Crayfish crankbaits are also superlative imitations for panfish, but the smaller 1½" models are best for these species. (Try 2½" and 3½" baits for largemouths and smallmouths.) Crankbaits will also catch trout and pickerel, although spinners and plugs are better choices for these fish.

Recruit number four to our lure dream team is the jig. A jig is elegant in its simplicity—consisting of a lead head, a hook, and a body made from deer hair, squirrel tail, marabou, or some synthetic concoction. That's all there is to a jig, yet these imitations can mock just about any menu item of the various game fish.



other game fish. Few striper or muskie fishermen would venture forth to their favorite bodies of water without an oversized Cordell Red Fin. And a 1½" minnow lure is a fine choice for both black and white crappie as well as bluegills. For that matter, I have caught 5-inch bluegills on my 3½" Rapala. Few game fish, it seems, can resist the charms of a floater-diver plug.

The third member of our selection is another outstanding lure—the crayfish crankbait. The Rebel crayfish, the Cordell Big 0, the Bomber Model A series, and the Bagley Kill'R B models exemplify this category. Crankbaits work best on active, aggressive fish, and they will also do the job on fish in a neutral mode. These fast-moving imitations, however, aren't very effective for inactive, non-feeding fish.



In colors of silver or white, a jig can be made to swim under the surface like a minnow. Paint this lure brown or orange and hop it across the bottom, and game fish will mistake the jig for a crayfish. Or you can vertically dance a jig up and down just above the bottom and make fish believe they are viewing a dying

shad. In short, a jig can be made to act like any prey species found from just beneath the surface to the bottom of a body of water. And this remarkable artificial will also bewitch active, neutral, and inactive fish. Being able to accomplish that last one is probably what gives the jig its reputation as being one of the premier lures.

While fishing jigs around the Old Dominion, I have caught stripers from Smith Mountain, crappie from Gaston, smallmouths from the South Fork of the Shenandoah, largemouths from Moomaw, rainbows from Douthat Lake, rock bass from the James River, and the list goes on and on.

The last member of our quintet is the plastic worm. There is no finer artificial for largemouth bass, I believe, than a six-inch plastic worm. And the more I use them for smallmouths, the more I am convinced that they are an outstanding choice for bronzebacks as well. Plus, I have fooled a spotted bass or two with worms.

But don't just relegate these imitation annelids to members of the black bass family. Last summer, for instance, I caught an oversized black crappie from the tidal Rappahannock with a plastic worm; and a three-pound

pickerel from a tiny creek with the same bait. Rock bass will also eagerly gulp a fake crawler, and I have heard that bass fishermen on our lakes will occasionally land a rockfish that decided to chomp down on one.

Regarding colors, my favorite is

purple and I probably use this hue 70 percent of the time. Black is another good color, as are green, red, and blue. I prefer my worms in solid colors, but I am in a distinct minority on that account. Most worms today are multi-colored and have all sorts of sparkles or streaks along their bodies. I am not sure whether all this sparkle and glitter stuff is designed to catch fish or fishermen. Nevertheless, there is no denying that plastic worms are wonderful baits.

I am sure that there are other popular lures which many sportsmen would have included in their universal list. Some anglers likely would have voted for prop baits such as the tiny torpedo, others would have advocated the versatility of spinnerbaits, and many would have praised the venerable spoon, no doubt. Those choices would have been sound ones, too.

As far as I know, old Bill Shakespeare never penned any sonnets about the universality of certain lures. Perhaps he should have, though, because there are some lures that will produce time after time, year after year for a number of game fish. And that's the truth. □

Bruce Ingram is the Virginia editor for Outdoor Life magazine.



It doesn't take a tackle box full of different lures to catch fish. Begin with the universal five: the in-line spinner, the floating/diving minnow plug (featured above bringing in a walleye), the crayfish crankbait, the jig, and the plastic worm, and you'll be in business for the season; photo by Doug Stamm.

Show How Much You Care...



Killdeer chick; photo by Joe Mac Hudspeth.

...Give To Virginia's Nongame and Endangered Species Fund

Many of Virginia's wildlife are in danger. Suffering from habitat loss and the dangers of pollution which threaten their survival, many species in the state are struggling to survive.

The Department of Game and Inland Fisheries is responsible for the protection and conservation of all wildlife in Virginia, but we receive no state tax dollars, and we need your help to do our job. Help us fund critical research and management programs for the state's

nongame and endangered species by contributing to our Nongame Wildlife Fund, which is supported by voluntary contributions made through our state tax checkoff program and direct giving.

Please send in your tax-deductible check (made payable to the Treasurer of Virginia) to: Virginia Nongame Wildlife Fund-VW, Virginia Department of Game and Inland Fisheries, P.O. Box 11104, Richmond, VA 23230-1104.

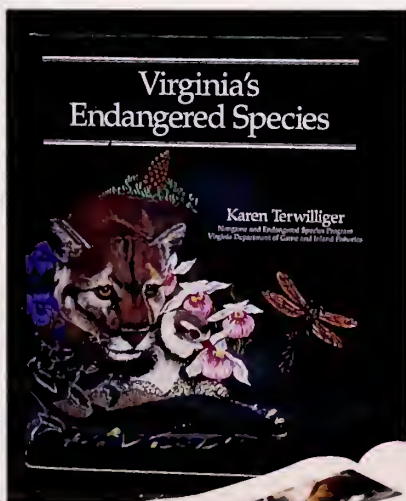


photo by Roy Edwards



Resource Guide Available On Virginia's Endangered Species

Order the only comprehensive resource guide on Virginia's Endangered Species for \$32.94 (softcover) or \$59.95 (hardcover). This 675-page guide identifies and describes more than 250 rare and endangered plants and animals in Virginia. Produced by the Virginia Department of Game and Inland Fisheries and other state natural resource agencies, this book documents the latest scientific information on Virginia's endangered species, information which is available in no other publication, *anywhere*.

Send your check plus 4.5 percent sales tax and \$3.00 ship and handling charges to: McDonald and Woodward Publishing Company, P.O. Box 10308, Blacksburg, VA 24062-0308. Phone: (703) 951-9465.

To order a Virginia's Endangered Species poster featuring the cover illustration on the book (*left*), please send a check for \$8 (made payable to: Treasurer of Virginia) to: VA Endangered Species Poster Offer, Attn: Diane Davis, VDGIF, P.O. Box 11104, Richmond, VA 23230-1104.

VA Team Named Conservation Communicators of the Year

The staff of *Virginia Wildlife* magazine, *Virginia Wildlife Video Magazine*, and Project Wild supervisor and Wildlife Education Coordinator Suzie Gilley were collectively named the 1993 Conservation Communicators of the Year by the Northeast Conservation Information and Education Association. This prestigious award is presented annually to the state agency, individual or team making a significant and lasting contribution to statewide conservation efforts.

The Northeast Association, composed of public relations, information and education specialists from 12 states, the District of Columbia and six Canadian provinces, singled out members of the Public Relations and Resource Education Division of the VA Department of Game and Inland Fisheries for what they felt was a coordinated and highly effective program of public outreach and education where each individual effort builds upon and reinforces the other team member's effort. □

1992 Virginia Wildlife Bound Volumes Available

Have you ever found yourself scrambling for a lost issue of *Virginia Wildlife*? Why not treat yourself to all 12 issues of 1992, handsomely bound in hardcover with gilt lettering—for only \$15? From January through December, you can relive those favorite stories over and over again, in addition to having your own reference library at your fingertips with the help of the December issue which features an index cover-

ing the articles for the entire year!

For only \$5 more than a yearly subscription to the magazine, you need never wonder, "Didn't I read about how to control deer damage, how to identify snakes, and how to capture butterflies on film in *Virginia Wildlife* last year?" Order your own copy now by sending your check for \$15 (made payable to the Treasurer of Virginia) to: *Virginia Wildlife*, Attn.: Diane Davis, 4010 W. Broad Street, Richmond, VA 23230-1104. Additional years are available, but please inquire, as supplies are limited. □



VW Gallery Seeking Artists

Virginia Wildlife is seeking wildlife artists to profile in an occasional special feature entitled "VW Gallery." We are looking for high-quality wildlife, sporting, or outdoor art, featuring species indigenous to Virginia. We prefer to receive color transparencies in a format larger than 35mm. Any art submitted for selection must be in horizontal format, and the staff of *Virginia Wildlife* reserves the right to select art for publication based on high quality and excellence.

We're looking forward to hearing from you! Send your submissions to: Emily Pels, Art Director, *Virginia Wildlife*, 4010 W. Broad Street, Richmond, VA 23230-1104.

Gifts Aid Game Department Programs

Many times over the years, people have "come to the rescue" of the

Virginia Department of Game and Inland Fisheries (VDGIF) with gifts. With tracts of land and cash, concerned Virginians have provided additional funds, funds that go a long way toward helping VDGIF attain its goals.

Of particular note was a recent gift of some \$60,000 from the estate of Mrs. Wilma Sandy in memory of her late husband Turner Sandy. During his lifetime Mr. Sandy had a deep appreciation for wildlife and conservation and had been involved in the Department's conservation efforts, giving many hours service as a special game warden in his area.

The gift was sincerely appreciated and came at a time when the Department is cutting back on programs and personnel it can no longer afford to finance.

Gifts to VDGIF can be made to the Game Protection Fund, which works to benefit wildlife generally or to the Nongame Fund which is used to help threatened and endangered species. Write to VDGIF, 4010 W. Broad Street, Richmond, VA 23230-1104 for more information. □

Letters

I really enjoy my *Virginia Wildlife* and look forward to getting it each month. Keep up the good work.

Elmo Brown
Monroe

Thanks for the free fishing guide and for a job well done in the publishing of your magazine. I enjoy it well enough to share it with 17 of my friends!

James W. Livengood
Falls Church

Editor's Note: Free fishing guides are still available by writing to: Virginia Department of Game and Inland Fisheries, "Free Fishing Guide" 4010 W. Broad St., Richmond, VA 23230-1104.

Recipes

By Joan Cone

MENU

Chilled Squash Soup
Fresh Crabmeat Cobbler
A Sauté Of Potatoes

Green Bean And Tomato Salad
Deep-Dish Gingered Peach Pie

Chilled Squash Soup

1 pound yellow squash, thinly sliced
1 small onion, chopped
1 can (14 1/2 ounces) chicken broth
4 ounces cream cheese, softened
1/8 teaspoon freshly ground pepper

Combine first 3 ingredients in a saucepan and bring to a boil. Cover, reduce heat and simmer 8 minutes or until tender; cool. Spoon squash mixture and cream cheese into a blender or processor. Process until smooth, stopping once to scrape down sides. Stir in pepper and chill well. Makes 1 quart.

*Fresh Crabmeat Cobbler

Crab & Madeira Filling

1/4 cup butter or margarine
1/4 cup all-purpose flour
1 1/2 cups half and half or 2% lowfat milk
3 tablespoons Madeira or dry sherry
2 tablespoons lime juice
2 tablespoons chopped chives
1 pound cleaned, shelled, fresh crabmeat (3 cups)
1/2 cup thawed frozen tiny peas
1/4 teaspoon salt
1/4 teaspoon white pepper
Pinch of ground nutmeg

Preheat oven to 375 degrees. Grease an 8-inch square baking dish. In a medium saucepan, melt butter or margarine over medium heat. Add flour and stir until mixture begins to foam. Gradually stir in half and half or milk and continue stirring until mixture thickens and bubbles. Stir in remaining ingredients for filling. Pour into greased baking dish; then set aside.

Lime Crumb Topping

3/4 cup all-purpose flour
1 teaspoon grated lime zest
1/2 teaspoon garlic powder

3 tablespoons melted butter or margarine

In a large mixing bowl, combine topping ingredients. Toss with a fork until crumbly. Using your thumbs and fingertips, crumble dough on top of crab filling. Bake 25 to 30 minutes or until crust is golden brown. Serve immediately. Makes 5 or 6 servings.

A Sauté of Potatoes

2 pounds of red or white potatoes, peeled and diced into 1/4-inch cubes
1/3 cup corn oil
2 tablespoons minced parsley mixed with 1 tablespoon minced garlic
Salt
Freshly ground pepper

In a pan, cover the potatoes with cold salted water and bring to a boil; turn off the heat and drain the potatoes. In a 10-inch nonstick skillet, heat 3 tablespoons oil and sauté (stir-fry) half the potatoes for 15 minutes or until they are fork tender, shaking the skillet most of the time. Transfer the potatoes to a serving platter. Heat the remaining oil and stir-fry the remaining potatoes. Put all the potatoes back into the skillet and sprinkle with the mixture of minced parsley and garlic. Stir-fry for 1 minute. Season with salt and freshly ground pepper. Serve immediately. Serves 4.

Green Bean and Tomato Salad

5 ounces green beans
3 ripe tomatoes
3 tablespoons chopped basil leaves or 1 teaspoon dried
1 tablespoon olive oil
3 tablespoons chicken broth or vegetable juice
1/4 teaspoon salt
1/8 teaspoon pepper

Trim ends from green beans and cut into 1-inch lengths. Cook in a medium saucepan of boiling salted water until just tender, 3 to 5 minutes. Add tomatoes to pan during last 10 to 20 seconds of cooking to loosen skins. Peel, seed and dice tomatoes. In a medium bowl, combine green beans and tomatoes with basil, olive oil and

chicken broth. Season with salt and pepper. Toss gently. Serve at room temperature or slightly chilled. Serves 4.

Deep-Dish Gingered Peach Pie

3 tablespoons cornstarch
3/4 cup granulated sugar
3 tablespoons light brown sugar, firmly packed
1 teaspoon ground ginger
1/4 teaspoon ground mace
2 tablespoons chopped crystallized ginger
2 tablespoons golden raisins, plumped in 1/4 cup boiling water for 1 minute, drained and dried
6 cups peeled, pitted and sliced peaches, tossed in 1 tablespoon freshly squeezed lemon juice
1 1/2 tablespoons butter or margarine, cut into bits
1 recipe for a deep-dish pie crust

Milk and Ginger-Sugar Glaze

2 tablespoons cold milk
1 tablespoon granulated sugar blended with 1/4 teaspoon ground ginger

Blend together the cornstarch, granulated sugar, brown sugar, ground ginger and mace. Add ginger, raisins and peaches along with any accumulated juice. Pile filling in a deep 9-inch pie pan. Dot with butter. Cover the filling with the round of pie dough, seal and crimp edges. Refrigerate for 10 minutes. For the glaze, brush the top of the pie with milk and sprinkle with sugar. Cut several steam vents, using a sharp knife. Bake in a preheated 425 degree oven for 25 minutes. Reduce the oven temperature to 350 degrees and continue baking for 20 to 25 minutes longer, or until the crust is golden and the fruit is tender. Serve warm or at room temperature. Makes 1 9-inch pie.

*Recipe is from *The Cobbler Crusade* by Irene Ritter. Published by Fisher



Safety

by Col. William Antozzi, Boating Safety Officer

Beware of Big Ships

Those huge ships on our Virginia waterways are dangerous due to their size. They must stay in ship channels because of the water depth required and must maintain considerable speed to steer effectively. Stopping distances for ships traveling at 12 knots is about an average of one mile and can take up to 10 minutes. The very large ones can take ten times that distance to stop.

The smart thing is to stay out of their way. There is no benefit in having the right of way if a small boat is about to be overrun by a big ship. It should be remembered that ship operators cannot see things that are directly in front of the ship's bows due to the height and length of the large ships. Typical large vessels are navigated from aft positions (positions back toward the sterns) and their structures create "blind zones" as much as two ship-lengths ahead. In low-visibility situations, large vessels navigate by radar and may not detect small craft.

Sailboats and windsurfers are highly vulnerable to "windshadows" created by large vessels. In other words, a large ship can cut off the wind so that wind-driven vessels are unable to maneuver, and are thus rendered out of control and helpless.

Inland navigation Rule 9 states that small vessels (all vessels less than 20 meters—about 65 feet) "shall not impede the passage of a vessel that can safely navigate only within a narrow channel or fairway." Rule 9 also requires that a vessel engaged in fishing "shall not impede any other vessel in a narrow channel."

Small recreational vessels, fishing vessels, and large commercial

vessels have dramatically different operating patterns. Serious safety problems may develop when those different vessel types share restricted waterways. There are rules, which, if observed and obeyed, make boating safer for all concerned.

Most collisions on the water occur because there is insufficient emphasis on the duties of "look-outs" who should be constantly alert and looking for danger all around. Binoculars are a big help in discovering danger while there is still time to avoid it. Early evasive action is important.

Boats should be easily seen. Radar reflectors high on masts, and in conditions of reduced visibility, flashlights directed at sails, spotlights, strobe lights, and white flares are all helpful. Of course, bright, unobscured navigation lights and anchor lights are required on most vessels. Lights on boats are meant to identify them so that collision will be avoided, and are not designed to help the operators see where the vessels are going, as is the case with road vehicles.

It is difficult to estimate the speed of a large ship. It may look slow, but still might be moving at a deceptively fast rate. Small boat operators should take early action to avoid collision. They should get out

of the ship channel if possible. Getting too close to ships may result in being drawn into the vessels and their propellers with devastating results.

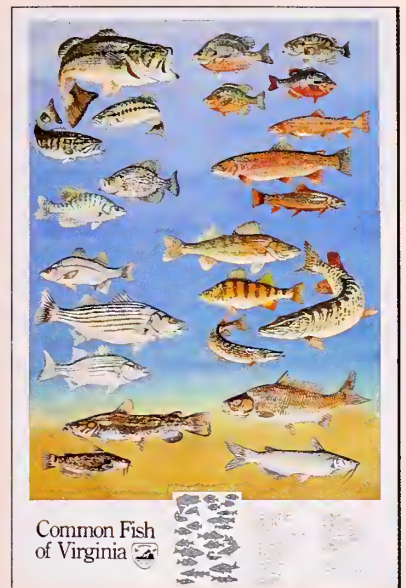
Five short blasts on a horn or whistle is a danger signal which is an important warning to small boat operators. If small boats are equipped with marine VHF-FM radios, channel 13 can be used to arrange safe passage between vessels. Channel 16 is the calling and distress frequency.

Finally, vessel operators should not drink alcoholic beverages or use mind-altering substances before or during vessel use—especially in dangerous, congested waters. □



Watch out for big ships. They require from 10 minutes to nearly two hours to stop. Don't get in their way! Photo by Gary Carter.

Put Swimming Fish and Wildlife Art on your walls!



The Virginia Department of Game and Inland Fisheries has produced two full-color fish identification posters. Just released is a 21 3/4" X 34" poster of 24 species of saltwater fish in Virginia. The second is a 21" X 36" poster of 23 freshwater game fish in Virginia. Each is available for only \$8! Specify which poster you'd like and send your check (made payable to the Treasurer of Virginia) to: Fish Poster, VDGI, P.O. Box 11104, Richmond, VA 23230-1104.



Winter Comfort

by Bob Henley

A limited edition of 950 . . .

Available now from Virginia Wildlife.

Order your very own limited edition (950) print of Bob Henley's "Winter Comfort" produced especially for *Virginia Wildlife*. You can own this 13"X 19 1/2" print signed and numbered by the artist for a mere \$45. But we can do even better! If you buy two one-year subscriptions to *Virginia Wildlife*, we'll give you "Winter Comfort" for \$35—that's a savings of \$10! So, why not adorn your walls with stunning wildlife art and your library with the best wildlife magazine around? Just fill out the gray card in this magazine or send your check (made payable to the Treasurer of Virginia) to: Winter Comfort offer, VDGI, P.O. Box 11104, Richmond, VA 23230-1104.



1993-1994 Virginia Wildlife Calendar

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We have a new look, and its yours to enjoy. More pictures (twice as many!) along with delightful descriptions of 12 animals to accompany stunning photographs by world-class photographers. These photos will bring you something new to enjoy each month, and they are so frameable that you may want to keep these birds, fish, plants and animals for years to come.

And don't forget all the information on our calendar

pages—from the best times to hunt and fish, to the red letter days when the robins return in the spring and the redbuds begin to bloom.

Remember, our special 1993-94 Virginia Wildlife Calendar starts in September and runs through next August. So, hurry! Fill in the order blank on the gray page inside this magazine...

Do it today!